



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,225	07/23/2001	Christof Koch	06618/790001/CIT 3411	4325
20985	7590	07/13/2005	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			DANG, DUY M	
			ART UNIT	PAPER NUMBER
			2621	
DATE MAILED: 07/13/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/912,225

Applicant(s)

KOCH ET AL.

Examiner

Duy M. Dang

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 8-41, 48-53 and 55-59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 42-47 and 54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Applicant's amendment filed 5/3/05 has been entered and made of record.
2. Applicant's amendment to cancel nonelected claims 8-41, 48-53, and 55-59 in response to this office action is advised.
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao [US Patent No. 5,566,246. Art of record, IDS filed 8/20/01] in view of Kikinis [US Patent No. 5,929,849].

Regarding claim 1, Rao teaches: analyzing an image to determine salient parts of an image representation without analyzing the actual content of the image [see saliency measure estimators shown in figure 1 and the saliency measures comprising long, smooth, contrasts refers to claimed salient parts according to col. 3 lines 14-20], and using said salient parts to determine an effectiveness of said image in displaying its content [see figure 1: note that the ranking of saliency in unit 60 is used in vision application 65 matching (col.5 lines 1-3)].

While Rao discloses using said salient parts to determine an effectiveness of said image in displaying, Rao fails to disclose using said salient parts to determine an effectiveness in attracting the attention of human observers to aspects of the image.

However, Kikinis teaches using said salient parts to determine an effectiveness in attracting the attention of human observers to aspects of the image [see col. 2 lines 32-36 (using

Art Unit: 2621

salient features in advertiser to attract purchaser), and text portions mentioned in col. 5 lines 15-23, col. 6 line 50 to col. 7 line 67 (viewer is interested in the BMW advertisement and as the result, he/she activates the selection signal)].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the features as taught by Kikinis in combination with Rao in order to enhance the effectiveness of the displaying image to viewer with less time consuming and labor tasks for viewer and cost reduction for advertiser as suggested by Kikinis in column 4 lines 55-61.

Regarding claim 2, Rao further teaches wherein said analyzing comprises analyzing pixels of said image using mean pixel values [see average change of curvature mentioned in col. 4 line 8. Note that average change of curvature refers to average length of contour which is formed by edge pixels or edgels (col. 3 lines 50-51). Thus, the average pixel values or mean pixel values are inherently included in the average curvature].

Regarding claim 3, Rao further teaches wherein said analyzing comprises analyzing pixels on said image using higher order statistical variations [see weight omega mentioned in col. 4 lines 48-65].

Regarding claim 4, Rao further teaches said image representation includes a single image at a single time [see image frames  $F_1...F_n$  mentioned in col. 6 line 15. Note that each image frame  $F$  represents a single image at a single time].

Regarding claim 5, Rao further teaches said image representation includes a sequence of images over time [see sequence image frames  $F_1...F_n$  mentioned in col. 6 line 15].

With regard to claim 6, Kikinis further teaches using salient features in advertising in order to attract purchaser as mentioned in column 2 lines 32-36.

Regarding claim 7, Kikinis further teaches said using comprises evaluating a display showing one or more items for sale [see col. 2 lines 25-36. Note the use of salient features to an advertised item attract buyers].

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 42-47 and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Rao [US Patent No. 5,566,246. Art of record, IDS filed 8/20/01].

Regarding claim 42, Rao teaches:

analyzing an image to determine salient parts of the image representation by obtaining information about the image in at least two different spectral ranges [see saliency measure estimators shown in figure 1 and the saliency measures comprising long, smooth, contrasts refers to claimed salient parts according to col. 3 lines 14-20. The image obtained by using infra-red sensor shown in figure 2 and image obtained by using TV sensor shown in figure 3 have two different spectral ranges according to col. 5 lines 5-10]; and correlating said information about the image in said at least two different spectral to determine salient portions of the image from said correlating, without looking for specific content of the image [see saliency measure estimators shown in figure 1].

Regarding claim 43, Rao further teaches using said salient portions to determine an effectiveness of said image in displaying a product [see figure 1: note that the ranking of saliency in unit 60 is used in vision application 65 matching (col.5 lines 1-3)].

Regarding claim 44, Rao further teaches wherein said analyzing comprises analyzing pixels of said image using mean pixel values [see average change of curvature mentioned in col. 4 line 8. Note that average change of curvature refers to average length of contour which is formed by edge pixels or edgels (col. 3 lines 50-51). Thus, the average pixel values or mean pixel values are inherently included in the average curvature].

Regarding claim 45, Rao further teaches wherein said analyzing comprises analyzing pixels on said image using higher order statistical variations [see weight omega mentioned in col. 4 lines 48-65].

Regarding claim 46, Rao further teaches said image representation includes a single image at a single time [see image frames  $F_1...F_n$  mentioned in col. 6 line 15. Note that each image frame  $F$  represents a single image at a single time].

Regarding claim 47, Rao further teaches said image representation includes a sequence of images over time [see sequence image frames  $F_1...F_n$  mentioned in col. 6 line 15].

Regarding claim 54, Rao further teaches optimize a display of visual information [see visual application 65 of figure 1 for object matching determination].

### ***Response to Arguments***

7. Examiner's response to Applicant's argument filed 5/3/05 as follows:

Applicant's arguments, see paragraph 2 of page 14, with respect to claims 1-7 have been fully considered and are persuasive. The rejection of claims 1-7 under section 35 U.S.C. 112, second paragraph has been withdrawn.

Applicant's amendment necessitated the new ground(s) of rejection with regard to claims 1-5 presented in this Office action.

In reply to Applicant's argument with regard to claim 3, it is noted that Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

In reply to Applicant's argument with regard to claim 42, see pages 16-17, it is noted that the features upon which applicant relies (i.e., correlate those two different spectral ranges, correlating the two spectral ranges to determine salient portions) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In reply to Applicant's argument with regard to claims 43-47 and 54, it is noted that Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

In reply to Applicant's argument with regard to claims 6-7, see last paragraph of page 17 to first full paragraph of page 18 that Kikinis does not teach or suggest evaluating the effectiveness of the image in an advertising context, and evaluating the effectiveness of the

Art Unit: 2621

image in attracting the attention of human observers. The examiner respectfully disagrees. It is noted that claim 6 depends from claim 1 and further recites "wherein said using comprising evaluating an effectiveness of said image in an advertising context". Kikinis does teach this claimed feature. For example, in Kikinis, the text portion mentioned in column 2 lines 32-36 teaches using salient features in advertiser to attract purchaser; and text portions mentioned in col. 5 lines 15-23, col. 6 line 50 to col. 7 line 67 teaches that viewer is interested in the BMW advertisement and as the result, he/she activates the selection signal. This clearly provides the effectiveness of the advertiser as the result the viewer activates the selection signal because he/she is interested in the advertiser.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



Art Unit: 2621


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duy M. Dang whose telephone number is 571-272-7389. The examiner can normally be reached on Monday to Friday from 5:30AM to 2:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on 571-272-7695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



dmd  
7/05



BHAVESH M. MEHTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600